

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

We claim:

1. (currently amended) A method of increasing tissue oxygenation in mammals, comprising applying a superoxygenated composition of oxygen microbubbles consisting essentially of oxygen in a pharmaceutically acceptable vehicle to skin or other a tissue surface external to the body of the mammal for a time sufficient to increase the subepithelial partial oxygen pressure from about 30% to about 120% above baseline pO₂.

2. (original) The method of claim 1 wherein the mammal is a human.

3.(cancelled)

4. (original) The method of claim 1 wherein the tissue is affected by a medical condition.

5. (original) The method of claim 4 wherein the medical condition is selected from the group consisting of bedsores, wounds, burns, and ulcers.

6. (original) The method of claim 4 wherein the medical condition is a bacterial infection.

{WP305335,1}

7. (original) The method of claim 6 wherein the bacterial infection is identified as an anaerobic pathogen bacterial infection.

8. (currently amended) The method of claim 1 wherein the superoxygenated composition is applied to a site selected from the group consisting of a mucosal surface and the surface of an organ that has been removed from a mammalian donor.

9. (cancelled)

10. (currently amended) The method of claim 1 wherein the level of oxygen in the superoxygenated composition ~~comprises~~ is from about 45 ppm oxygen to about 220 ppm oxygen.

11. (original) The method of claim 1 wherein the superoxygenated composition is at about 0°C. to about 34°C.

12. (canceled)

13. (currently amended) The method of claim 1 wherein the pharmaceutically acceptable vehicle ~~superoxygenated composition~~ comprises water and ~~oxygen microbubbles.~~

14. (currently amended) The method of claim 1 ~~[[3]]~~ wherein the oxygen microbubbles are between about 2 μ and about 10 μ in diameter.

{WP305335;1}

15. (currently amended) The method of claim 1[[3]] wherein the microbubbles are between about 0.6 μ and about 5 μ in diameter.

16. (currently amended) The method of claim 1[[3]] wherein the superoxygenated composition is applied under agitation.

17. (original) The method of claim 16 wherein the agitation is provided in a whirlpool bath.

18. (currently amended) The method of claim 1 wherein the ~~composition is applied in~~ pharmaceutically acceptable vehicle allows the superoxygenated composition to be administered is in the form of a cream, lotion or gel.

19. (original) The method of claim 1 wherein the composition is applied by soaking, immersion, spraying, rubbing or aerosols.

{WP305335;1}